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EXAMINER	
FLETCHER, JAMES A	
ART UNIT	**PAPER NUMBER**
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/380,187	YAMAGUCHI ET AL.	
	Examiner	Art Unit	
	James A. Fletcher	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 5-10, 15-20* is/are rejected.

7)☒ Claim(s) *2-4 and 12-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11 December 2007 regarding claim 1 have been fully considered but they are not persuasive.

In re page 9, Applicant's Representative states: "the Examiner has not taken the position that either Fujinami or Daum discloses or suggests a data formatter that is operable not to output when the sequence of input code is judged to be a part of the packet stat [sic] code."

The Examiner respectfully disagrees. The fact that Fujinami explicitly discloses the conditions under which data IS output implicitly discloses that the data is NOT output under different conditions. Further, as is understood by those of skill in the art, overhead data (the data that is used to identify and sequence the payload data) is not intended to be provided to the payload decoder, and therefore it would make no sense to provide the recited packet start code data to a payload processor.

2. Applicant's arguments with respect to claim 8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujinami et al (5,568,274), and further in view of Daum (5,596,420).

Regarding claim 1, Fujinami et al disclose a coded signal reproduction apparatus for reproducing coded data including a plurality of packets, wherein a packet start code indicating a packet boundary between a subsequent packet is placed at a head portion of each packet (Col 2, lines 1-2 "The entry packet begins with a Packet_Start_Code_Prefix"), said coded signal reproduction apparatus comprising:

- a matching status information outputter operable to detect whether a sequence of input code is a part of the packet start code, and to output the detection result as matching status information (Col 3, lines 17-22 "The control circuit 21 in the separation circuit 21 successively connects the input terminal G of the switching circuit 23 to the output terminals H1 and H2 in accordance with the stream_ID of the packet header received from the header separation circuit 22"); and
- a data formatter operable to output predetermined data in accordance with the matching status information (Col 3, lines 17-22 "The control circuit 21 in the separation circuit 21 successively connects the input terminal G of the switching circuit 23 to the output terminals H1 and H2 in accordance with the stream_ID of the packet header received from the header separation circuit 22") when the code is judged not to be a part of the packet start code (Col 3, lines 9-12 "the header separation circuit 22 in the separation circuit 21 separates pack headers and packet headers from the multiplexed signal read

out from the DSM 10" and Col 15, lines 29-33 "The control circuit 24 of the separation circuit 21 causes the switching circuit 23 to connect the input terminal G successively to the output terminals H1 and H2 in accordance with the stream_ID of the packet header received from the header separation circuit 22");

- wherein said matching status information outputter includes a head code detection unit operable to receive the sequence of input code (Col 3, lines 17-22 "The control circuit 21 in the separation circuit 21 successively connects the input terminal G of the switching circuit 23 to the output terminals H1 and H2 in accordance with the stream_ID of the packet header received from the header separation circuit 22") in units of a predetermined bit length (Col 1, lines 10-11 "a receiving apparatus and method for transmitting or receiving a pack of 2,048 bytes").

Fujinami et al disclose evaluating packet start codes and input codes (Col 2, lines 1-4 "Each packet includes a header, which includes a Packet_Start_Code_Prefix, a stream_ID, a Packet._length, a Presentation Time Stamp (PTS), a Decoding Time Stamp (DTS), and a packet data portion"), but do not specifically determine whether a current input code of the sequence of input code matches a current code of the packet start code, and outputs the predetermined data at a timing when said head code detection unit determines that the current input code of the sequence of input code does not match the current code of the packet start code

Daum teaches the evaluation of packet start codes and input codes to determine if the current input code of the sequence of input code matches a current code of the packet start code, and outputs the predetermined data at a timing when the head code detection unit determines that the current input code of the sequence does not match the current code of the packet start code (Col 4, lines 10-16 "A comparator coupled to the subtracter compares the difference value with a predetermined time drift threshold and outputs a video frame skip signal if the difference value exceeds the pre-determined time drift threshold and the difference value is negative and outputs a video frame repeat signal if the difference value exceeds the predetermined time drift threshold and the difference value is positive").

As suggested by Fujinami et al and taught by Daum, the comparison of an input code with a current code is well known, widely used, and commercially available, providing the user with a means to reduce presentation latency and a more steady presentation than would be available without the use of such a process.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujinami at al by comparing input codes and current codes, and outputting the predetermined data at a timing when the codes do not match.

Regarding claim 10, Fujinami et al disclose a coded signal reproduction apparatus wherein the sequence of input code is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Fig

13 shows audio and video signals multiplexed into a data stream, and Fig 14 shows several reproduction information data in the same stream).

5. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination as applied to claims above, and further in view of Toyohara (5,768,265).

Regarding claim 5, Fujinami et al disclose a coded signal reproduction apparatus comprising:

- header analyzer operable to analyze the header of the packet to output reproduction information when the input code sequence is coded video data (Col 3, lines 12-15 "The header separation circuit 22 supplies the headers to the control circuit 24, and supplies the multiplexed signal to the input terminal G of the switching circuit 23").

Fujinami et al are silent on the topic of effectiveness of the data.

Toyohara teaches a data format means that inserts the reproduction information together with information indicating effectiveness of the reproduction information, in a predetermined position in the decoded video data (Col 8, lines 39-41 "the identifier discriminating circuit 410 analyses the identifier attached to the respective data to identify the effectiveness of the data").

As taught by Toyohara, effectiveness data lessens the burden on the processor by identifying packets that need not be decoded.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Fujinami et al in order to provide effectiveness data to the decoder.

Regarding claim 15, Fujinami et al disclose a coded signal reproduction apparatus wherein the sequence of input code is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Fig 13 shows audio and video signals multiplexed into a data stream, and Fig 14 shows several reproduction information data in the same stream).

6. Claims 6-7 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination as applied to claims above, and further in view of Boden (5.633,686).

Regarding claim 6, Fujinami et al disclose a coded signal apparatus wherein the header analyzer includes a header analysis unit operable to analyze the header of the packet and to output the reproduction information (Fig 17, item 67, "Control Circuit"), and a reproduction information hold unit operable to hold the reproduction information (Fig 17, item 93 "Entry Point Storage Device" and item 68 "TOC Storage Device").

Regarding claim 7, Fujinami et al disclose a coded signal reproduction apparatus wherein the header analyzer is operable to activate when the packet start code is identified (Col 12, lines 20-21 "The pack begins with a Pack_Header consisting of a Pack_Start_Code" and Col 3, lines 17-22 "The control circuit 21 in the separation circuit 21 successively connects the input terminal G of the switching circuit 23 to the

output terminals H1 and H2 in accordance with the stream_ID of the packet header received from the header separation circuit 22").

Regarding claims 16 and 17, Fujinami et al disclose a coded signal reproduction apparatus wherein the sequence of input code is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Fig 13 shows audio and video signals multiplexed into a data stream, and Fig 14 shows several reproduction information data in the same stream).

7. Claims 8, 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagihara et al (6,172,989), in further view of Fujinami et al (5,568,274), and in further view of Movshovich et al (6,359,911).

Regarding claim 8, Yanagihara et al disclose a coded signal reproduction apparatus comprising:

- a formatter operable to add a predetermined number of pseudo data to the rear of the code sequence indicating the end of the coded data (Col 7, lines 1-5 "the packeting circuit 45 sets the supplied time information as a 4-byte time stamp and adds 124 byte padding data to the time stamp and the 2,048 byte pack in order that the total byte length be a multiple of 16, as shown in FIG.4"), so that the data bus width of pipeline transfer including the end of the coded data becomes equal to the bus width of pipeline transfer including other data (Col 8, lines 19-20 "if the playback rate is changed, FN and DB are changed in accordance"), when a code sequence indicating the end of the code data is detected by the end code sequence detector (Col 13, line 66 -

Col 14, line 3 "The process then advances to step S3 to add 28-byte padding data to the hindmost end of each source packet in order to form data blocks of the quadlet unit size").

Yanagihara discloses a code sequence for detecting the end of the coded data (Col 1, lines 66-67 "The packet header is formed of 'Data_Length' at representing the data length"), but does not disclose a discrete code indicating the end of the data at the end of the data.

Fujinami et al teach a code at the end of the data that identifies the end of the data (Col 12, lines 17-19 "the multiplexed signal includes at least one pack, and an ISO_11172_end_code").

As is understood by those of skill in the art, a unique code identifying the end of a data unit allows the receiving apparatus to determine the limit of the unit and process it accordingly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yanagihara in order to provide a code at the end of the data identifying the end of the data.

Yanagihara discloses transfer of data in order to meet a predetermined bandwidth (Fig. 9 shows several bandwidths and the control thereof), but does not specifically disclose that it is always less than the data bus width of pipeline transfer, and that the coded data is transferred successively in a pipeline manner.

Movshovich et al teach controlling the data rate so that it is always within the capacity of the pipeline transfer capacity, and that the coded data is transferred successively in a pipeline manner (Col 9, lines 22-30 "The data is shifted into the transport stream pipeline 354 upon each occurrence of a shift clock after the PACKET_START signal has been detected as illustrated on line 356. The PACKET_START signal is propagated through the transport stream pipeline 354 as the transport packet propagates through the pipeline to signify the start of the transport packet. The transport stream pipeline allows the transport packets to be passed to the local header unit at the proper time").

As taught by Movshovich et al, pipelining data at a rate within the capacity of the pipeline is well known, widely used, and commercially available, allowing the transfer of data in accordance with the capacity of the system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yanagihara in order to provide pipeline transfer of data at a rate within the capacity of the pipeline.

Regarding claim 9, Yanagihara et al disclose a coded signal reproduction apparatus comprising:

- a specific code sequence inserter operable to insert a specific code sequence in the last packet in a packet sequence before decoding;

- wherein the formatter is operable to add a predetermined number of pseudo data to the rear of the specific code sequence (Col 9, line 66- Col 10, line 1 "The packeting circuit 45...first adds padding data to a pack of 2,048 bytes, as shown in FIG. 10." Fig. 10 clearly shows the padding data added to the end of the sequence).

Regarding claim 18, Yanagihara et al disclose a coded signal reproduction apparatus wherein the sequence of input code is a coded and multiplexed signal in which audio, video, and reproduction information annexed thereto are multiplexed (Col 5, lines 9-13 "The demultiplexer 13 is arranged to sort, out of supplied MPEG-PS data, a video pack having video information, an audio pack having audio information, and a sub picture pack having information such as captions, and to output the packs to a decoding section").

Allowable Subject Matter

8. Claims 2-4 and 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (571) 272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAF
16 January 2007

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